

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN	Inventor(s): Mary E. Brunkow et al.	

Title: COMPOSITIONS AND METHODS FOR INCREASING BONE MINERALIZATION

Express Mail No. EL897871282US

Serial No. 09/668,021

Docket No. 240083.508D2

Common Cysteine Backbone

1		50
human-gremlin.pro	-----	-----
human-cerberus.pro	MHLLLFQLLV	LLPLGKTTRH QDGRQNQSSL SPVLLPRNQR ELPTGNHEEA
human-dan.pro	-----	-----
human-beer.pro	-----	-----
	51	100
human-gremlin.pro	-----	-----M SRTAYTVGAL LLLLGTLTPA AEGKKKGSQG
human-cerberus.pro	EEKPDLFVAV	PHLVAT.SPA GEGQRQREKM LSRFGRFWKK PEREMHPSRD
human-dan.pro	-----	-----
human-beer.pro	-----	-----MQLPLA LCLVCLLVHT
	101	150
human-gremlin.pro	AI.PPPDKAQ	HNDSEQTQSP QQPGSRNRGR GQGRGTAMPG EEVLESSQEA
human-cerberus.pro	SDSEPFPPGT	QSLIQPID.G MKMEKSPLRE EAKKFVHHFM FRKTPASQGV
human-dan.pro	-----	-----MLRVLVGAVL PAMLLAAPP
human-beer.pro	AFRVVEGQGW	QAFKNDATET IPGEYEP PPELENNKTM NRAENGRRPP
	151	200
human-gremlin.pro	LHVTERKYLK	RDWCKTQPLK QTIHEEGCNS RTIINRF.CY GQCNSFYIPR
human-cerberus.pro	ILPIKSHEVH	WETCRTVPFS QTITHEGCEK VVQNNL.CF GKCGSVHFP.
human-dan.pro	INKLALFPDK	SAWCEAKNIT QIVGHSGCEA KSIQNR.ACL GQCFSYSVFN
human-beer.pro	HHPFETKDVS	EYSCRELHFT RYVTDGPCRS AKPVTCLVCS GQCGPARLLP
	201	250
human-gremlin.pro	HIRKEEGSFQ	SCSF...CKP KKFTTMMVTL NCPQLQPTK K.KRVTRVKQ
human-cerberus.pro	..GAAQHSHT	SCSH...CLP AKFTTMHLPL NCTELSSVIK V...VMLVEE
human-dan.pro	TFPQSTESLV	HCDS...CMP AQSMWEIVTL ECPGHEEVPR VDKLVEKILH
human-beer.pro	NAIGRGKWWR	PSGPDFRCIP DRYRAQRVQL LCPGGEAPRA RKVRLVAS..
	251	300
human-gremlin.pro	CRC.ISIDLD	-----
human-cerberus.pro	COCKVKTEHE	DGHILHAGSQ DSFIPGVSA~
human-dan.pro	CSCQACGKEP	SHEGLSVYVQ GEDGPSQPG THPHPHPHPH PGGQTPPEPD
human-beer.pro	CKCKRLTRFH	NQSELKDFGT EAARPKGRK PRPRARSAKA NQAELENAY~
	301	314
human-gremlin.pro	-----	-----
human-cerberus.pro	-----	-----
human-dan.pro	PPGAPHTEEE	GAED
human-beer.pro	-----	-----

Fig. 1

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

Title: COMPOSITIONS AND METHODS FOR INCREASING BONE MINERALIZATION

Express Mail No. EL897871282US

Inventor(s): Mary E. Brunkow et al. Serial No. 09/668,021 Docket No. 240083.508D2

Human Beer Gene Expression by RT-PCR

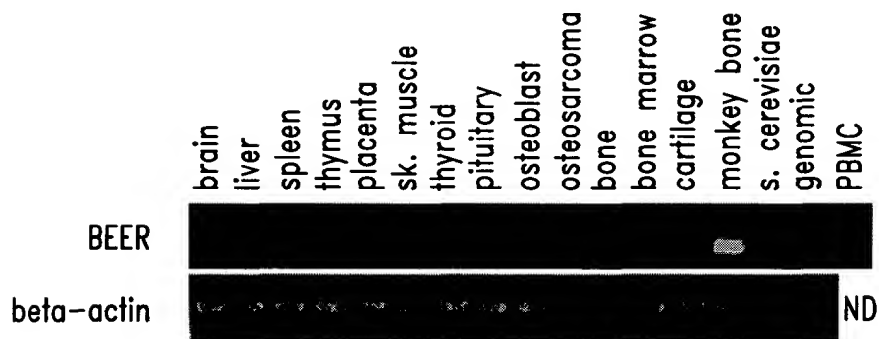


Fig. 2

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

Title: COMPOSITIONS AND METHODS FOR INCREASING BONE MINERALIZATION

Express Mail No. EL897871282US

Inventor(s): Mary E. Brunkow et al. Serial No. 09/668,021 Docket No. 240083.508D2

RNA In Situ Hybridization of Mouse Embryo Sections

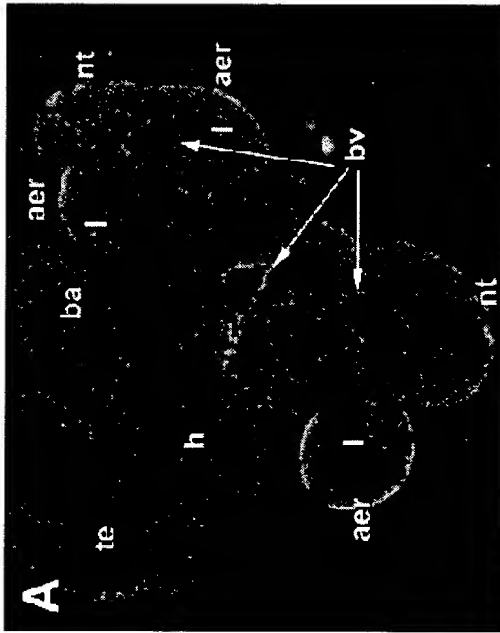


Fig. 3A

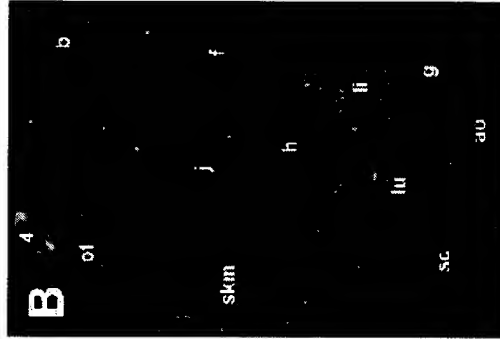


Fig. 3B

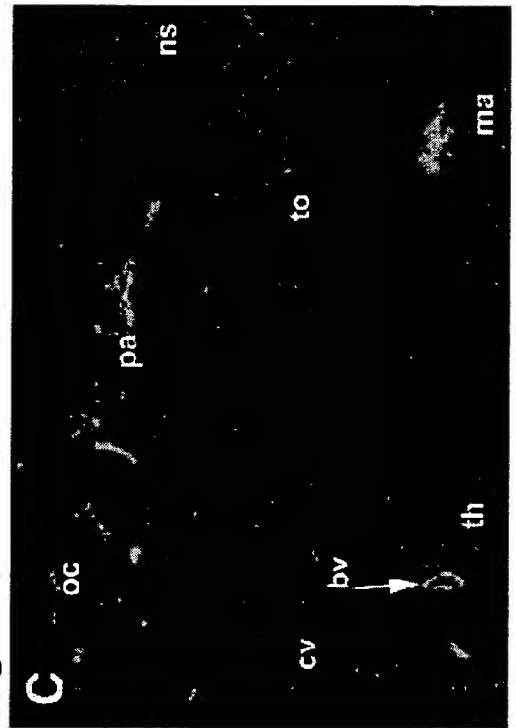


Fig. 3C

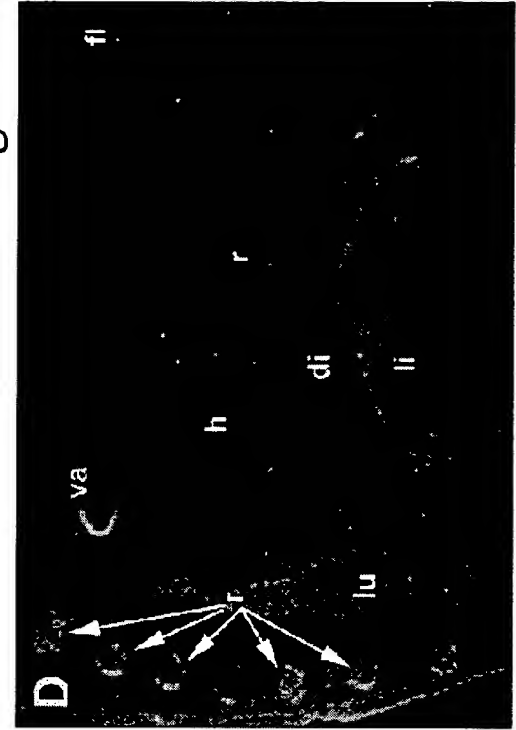


Fig. 3D

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

Title: COMPOSITIONS AND METHODS FOR INCREASING BONE MINERALIZATION

Express Mail No. EL897871282US

Inventor(s): Mary E. Brunkow et al. Serial No. 09/668,021 Docket No. 240083:508D2

Antibody Selectivity

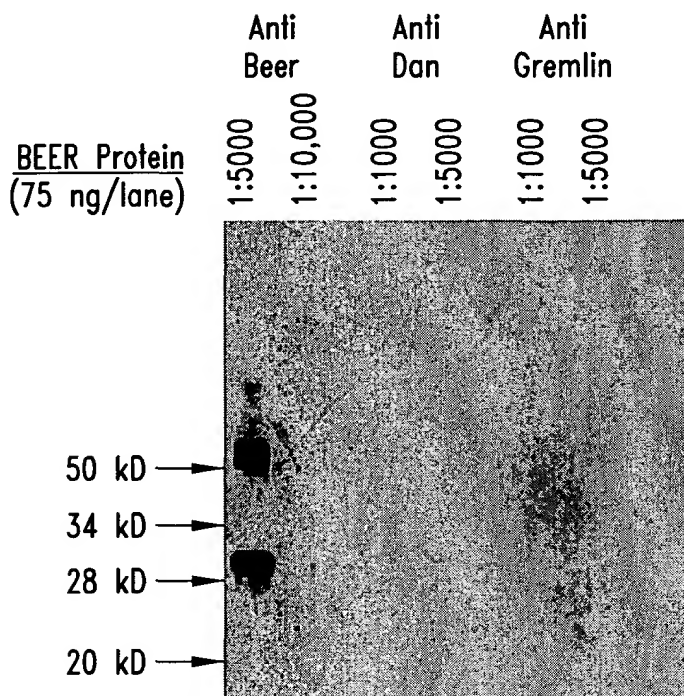


Fig. 4A

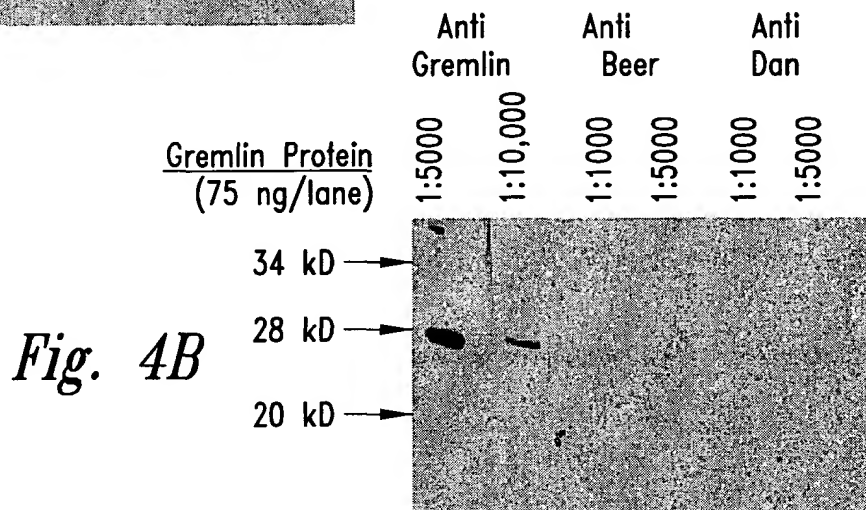


Fig. 4B

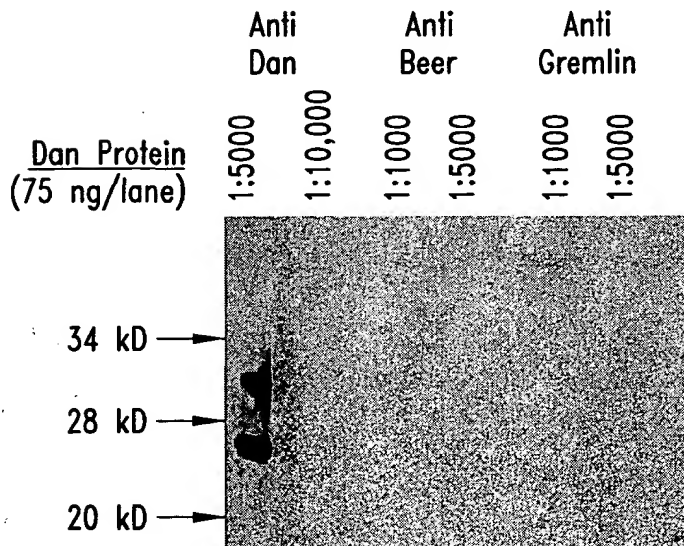


Fig. 4C

Evaluation of Beer binding to BMP family members Anti-FLAG Immunoprecipitation

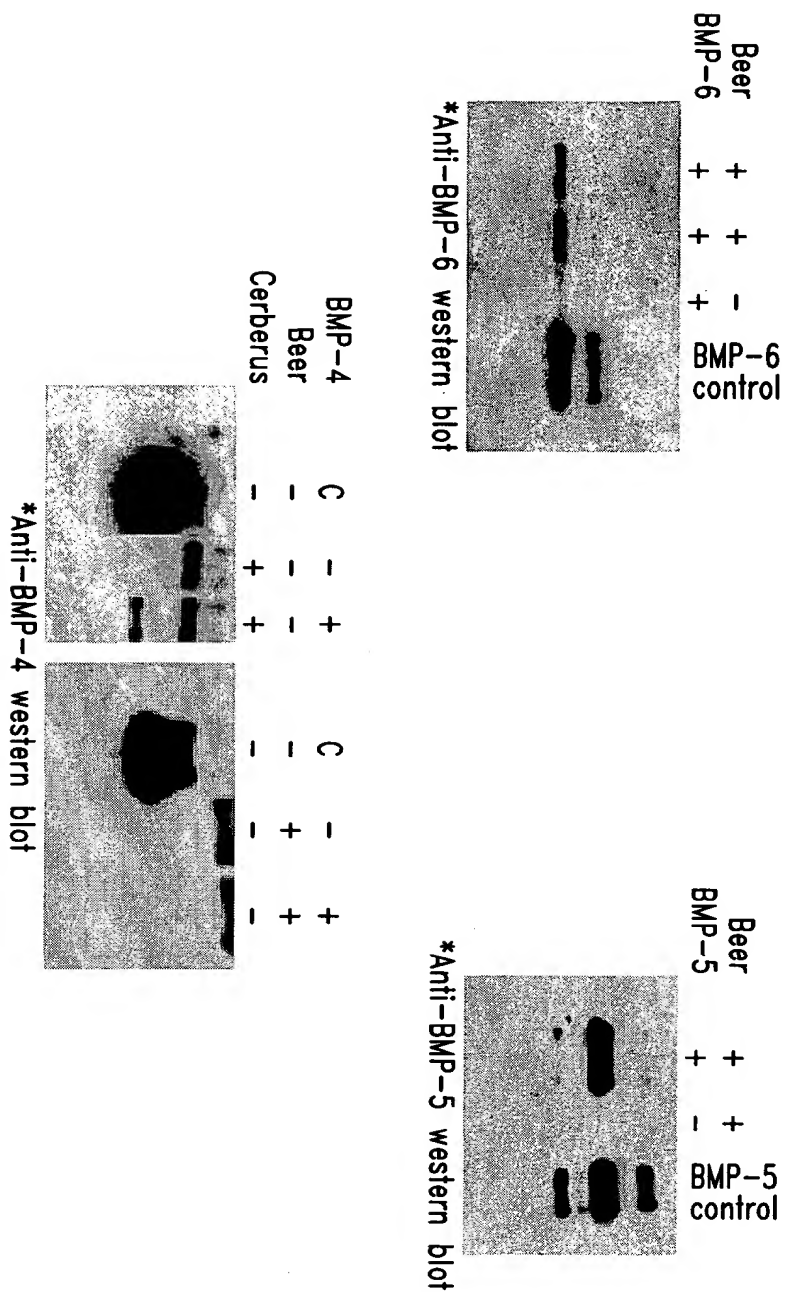


Fig. 5

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN	Inventor(s): Mary E. Brunkow et al.	

Title: COMPOSITIONS AND METHODS FOR INCREASING BONE MINERALIZATION

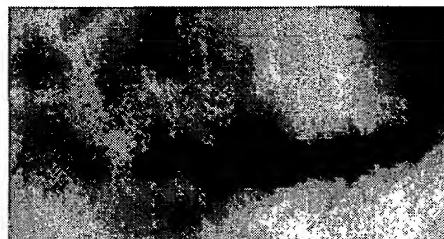
Express Mail No. EL897871282US

Serial No. 09/668,021

Docket No. 240083.508D2

BMP-5/Beer Dissociation Constant Characterization

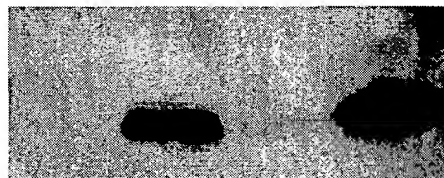
.75 1.5 7.5 15 30 60 120 nM BMP-5



*Anti-FLAG immunoprecipitation
*Anti-BMP-5 western blot

Ionic Disruption of BMP-5/Beer Binding

NaCl(mM)	500	150	150	BMP-5 western control
Beer	+	+	-	
BMP-5	+	+	+	



*Anti-FLAG immunoprecipitation
*Anti-BMP-5 western blot

Fig. 6